

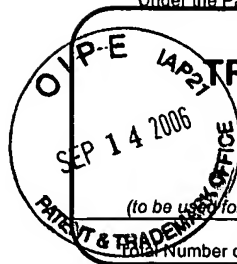
IFW/1764

PTO/SB/21 (09-04)

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TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

Total Number of Pages in This Submission

| | |
|------------------------|----------------------------|
| Application Number | 10/560,372 |
| Filing Date | December 12, 2005 |
| First Named Inventor | Rumpler et al. |
| Art Unit | Not Yet Known |
| Examiner Name | Not Yet Known |
| Attorney Docket Number | SMB-PT162 (PC 04 224 B US) |

ENCLOSURES (Check all that apply)

| | | |
|---|---|---|
| <input type="checkbox"/> Fee Transmittal Form | <input type="checkbox"/> Drawing(s) | <input type="checkbox"/> After Allowance Communication to TC |
| <input type="checkbox"/> Fee Attached | <input type="checkbox"/> Licensing-related Papers | <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences |
| <input type="checkbox"/> Amendment/Reply | <input type="checkbox"/> Petition | <input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief) |
| <input type="checkbox"/> After Final | <input type="checkbox"/> Petition to Convert to a Provisional Application | <input type="checkbox"/> Proprietary Information |
| <input type="checkbox"/> Affidavits/declaration(s) | <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address | <input type="checkbox"/> Status Letter |
| <input type="checkbox"/> Extension of Time Request | <input type="checkbox"/> Terminal Disclaimer | <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below): |
| <input type="checkbox"/> Express Abandonment Request | <input type="checkbox"/> Request for Refund | International Preliminary Report on Examination |
| <input type="checkbox"/> Information Disclosure Statement | <input type="checkbox"/> CD, Number of CD(s) _____ | |
| <input type="checkbox"/> Certified Copy of Priority Document(s) | <input type="checkbox"/> Landscape Table on CD | |
| <input type="checkbox"/> Reply to Missing Parts/Incomplete Application | Remarks | |
| <input type="checkbox"/> Reply to Missing Parts under 37 CFR 1.52 or 1.53 | | |

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

| | | | |
|--------------|------------------------|----------|--------|
| Firm Name | VOLPE AND KOENIG, P.C. | | |
| Signature | | | |
| Printed name | Randolph J. Huis | | |
| Date | 9/6/2006 | Reg. No. | 34,626 |

CERTIFICATE OF TRANSMISSION/MAILING

I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below:

| | | | |
|-----------------------|------------------|------|----------|
| Signature | | | |
| Typed or printed name | Randolph J. Huis | Date | 9/6/2006 |

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the **PATENT APPLICATION** of:

Rumpler et al.

Application No.: 10/560,372

Filed: December 12, 2005

For: METHOD FOR PRODUCTION OF
ENZYME GRANULES AND ENZYME
GRANULES PRODUCED THUS

Group: Not Yet Known

Examiner: Not Yet Known

Our File: SMB-PT162

(PC 04 224 B US)

Date: September 6, 2006

**COMMUNICATION RE
INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY**

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Enclosed is the English language translation of the International Preliminary Report on Patentability related to the above-identified 35 U.S.C. §371 National Phase Application based on PCT/EP2004/005662.

Prompt examination of the present application is respectfully requested.

Respectfully submitted,

Weis et al.

By  _____

Randolph J. Huis
Registration No. 34,626
(215) 568-6400

Volpe and Koenig, P.C.
United Plaza, Suite 1600
30 South 17th Street
Philadelphia, PA 19103
RJH/dmm

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

| | | | |
|--|--|---|------------------|
| Applicant's or agent's file reference PC 04 224 B | FOR FURTHER ACTION | | See item 4 below |
| International application No. PCT/EP2004/005662 | International filing date (day/month/year) 26 May 2004 (26.05.2004) | Priority date (day/month/year) 11 June 2003 (11.06.2003) | |
| International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237 | | | |
| Applicant GLATT INGENIEURTECHNIK GMBH | | | |

1. This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 bis.1(a).

2. This REPORT consists of a total of 7 sheets, including this cover sheet.

In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.

3. This report contains indications relating to the following items:

- | | |
|--|---|
| <input checked="" type="checkbox"/> Box No. I | Basis of the report |
| <input checked="" type="checkbox"/> Box No. II | Priority |
| <input type="checkbox"/> Box No. III | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability |
| <input type="checkbox"/> Box No. IV | Lack of unity of invention |
| <input checked="" type="checkbox"/> Box No. V | Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| <input type="checkbox"/> Box No. VI | Certain documents cited |
| <input type="checkbox"/> Box No. VII | Certain defects in the international application |
| <input type="checkbox"/> Box No. VIII | Certain observations on the international application |

4. The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis .2).

| | |
|---|--|
| The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No. +41 22 740 14 35 | Date of issuance of this report 01 May 2006 (01.05.2006) |
| | Authorized officer Agnes Wittmann-Regis Telephone No. +41 22 338 89 70 |

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

Translation

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

To:

Date of mailing
(day/month/year)

Applicant's or agent's file reference

PC 04 224 B

FOR FURTHER ACTION

See paragraph 2 below

International application No.

PCT/EP2004/005662

International filing date (day/month/year)

26.05.2004

Priority date (day/month/year)

11.06.2003

International Patent Classification (IPC) or both national classification and IPC

Applicant

GLATT INGENIEURTECHNIK GMBH

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☒ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/EP

Authorized officer

Facsimile No.

Telephone No.

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/EP2004/005662

Box No. I

Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This opinion has been established on the basis of a translation from the original language into the following language _____, which is the language of a translation furnished for the purposes of international search under Rule 12.3 and 23.1(b).
2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
- a. type of material
- ☐ a sequence listing
- ☐ table(s) related to the sequence listing
- b. format of material
- ☐ in written format
- ☐ in computer readable form
- c. time of filing/furnishing
- ☐ contained in the international application as filed.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/EP2004/005662

Box No. II

Priority

1. ☒ The following document has not yet been furnished:
- ☒ copy of the earlier application whose priority has been claimed (Rule 43bis.1 and 66.7(a)).
 - ☐ translation of the earlier application whose priority has been claimed (Rule 43bis.1 and 66.7(b)).
- Consequently it has not been possible to consider the validity of the priority claim. This opinion has nevertheless been established on the assumption that the relevant date is the claimed priority date.
2. ☐ This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rules 43bis.1 and 64.1). Thus for the purposes of this opinion, the international filing date indicated above is considered to be the relevant date.
3. Additional observations, if necessary:

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/EP2004/005662

Box No. V

Reasoned statement under Rule 43bis(1)(ii) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement

1 Statement

Novelty (N)

Claims 1-35

YES

Claims

NO

Inventive step (IS)

Claims 1-35

YES

Claims

NO

Industrial applicability (IA)

Claims 1-35

YES

Claims

NO

2 Citations and explanations:

Reference is made to the following documents:

D1: DE 101 46 778 A (GLATT INGTECH GMBH) 24 April 2003
(2003-04-24)

D2: DE 36 09 133 A (GLATT GMBH) 24 September 1987
(1987-09-24)

D3: WO 01/37980 A (BAETTIG MARKUS J; GLATT PROCESS
TECHNOLOGY GMBH (DE); TONDAR MATTHIAS) 31 May 2001
(2001-05-31)

D4: EP-A-1 126 017 (GLATT INGTECH GMBH) 22 August 2001
(2001-08-22)

D5: US-A-4 946 654 (STOPP GERHARD ET AL) 7 August 1990
(1990-08-07)

Novelty (PCT Article 33(2))

The production of enzyme-containing granules is known in the prior art. Two methods are principally used for this: enzyme preparations are extruded and then shaped to form granules; or the granules are formed in flat fluidized bed units in which a carrier gas flows through (for example) a grating in the bottom and/or are coated with an active substance.

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/EP2004/005662

Box No. V

Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement

No prior art document discloses, however, a method as claimed, in particular characterized by the aspect that liquid enzyme preparations are sprayed via spray units chiefly into one solids-loaded gas jet.

Novelty over the prior art is thus recognized.

Inventive step (PCT Article 33(3))

Documents D1 to D4 are considered relevant documents of the prior art with respect to the subject matter of claim 1. They disclosed methods and fluidized-bed systems for producing compact solid particles. Pelleting and/or coating are achieved in the methods.

D1 to D4 are from the pharmaceutical and/or cleaning agent industries. They do not relate specifically to enzyme granules, but a person skilled in the art in the pharmaceutical, cleaning agent, feedstuff and/or food industries would also readily use enzyme-containing starting materials for producing granules, since the production and use of enzyme granules is part of the prior art.

The subject matter of claim 1 differs, however, from D1-D4 in that in the prior art the carrier gas is used in the "flat" fluidized bed and not, as in the present application, rather focused in one gas jet, into which the liquid enzyme formulations are principally sprayed.

Document D5 can, in addition, be considered relevant. It

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/EP2004/005662

Box No. V

Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability:
citations and explanations supporting such statement

describes a process and a plant for producing granules: a liquid starting material is sprayed by a gas in a nozzle and granulated in a fluidized bed (see claim 1 and fig. 9).

In contrast thereto, in the present application, the liquid enzyme formulation is sprayed into a solids-loaded gas stream.

No prior art document clearly indicates to a person skilled in the art a method as to how to arrive at the application claimed.

Therefore, an inventive step for independent process claim 1 is recognized.

It is assumed that a person skilled in the art is able to differentiate the enzyme granules which have been produced by the present claim 1 from those of the prior art (e.g. by make up and/or structure of the granules). Under this assumption, the inventive step of claims 17, 19 and 24 (product obtainable by the claimed process, or use of the product) is also recognized.

Dependent claims, which relate to novel and inventive claims are considered as novel and inventive.

Industrial applicability (PCT Article 33(4)) is recognized owing to the proposed forms of use (e.g. granules for feedstuffs, foods, laundry detergents).

From the INTERNATIONAL BUREAU

PCT

NOTIFICATION OF TRANSMITTAL
OF COPIES OF TRANSLATION
OF THE INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY
(CHAPTER I OR CHAPTER II
OF THE PATENT COOPERATION TREATY)
(PCT Rules 44bis 3(c) and 72.2)

To:

MAUCHER, Wolfgang
Dreikönigstrasse 13
79102 Freiburg i. Br.
ALLEMAGNE

| | |
|--|--|
| Date of mailing (day/month/year) 11 May 2006 (11.05.2006) | |
| Applicant's or agent's file reference PC 04 224 B | IMPORTANT NOTIFICATION |
| International application No. PCT/EP2004/005662 | International filing date (day/month/year) 26 May 2004 (26.05.2004) |
| Applicant GLATT INGENIEURTECHNIK GMBH et al | |

1. Transmittal of the translation to the applicant.



The International Bureau transmits herewith a copy of the English translation of the international preliminary report on patentability (Chapter I).



The International Bureau transmits herewith a copy of the English translation of the international preliminary report on patentability (Chapter II).

2. Transmittal of the copy of the translation to the designated or elected Offices.

The International Bureau notifies the applicant that copies of that translation have been transmitted to the following designated or elected Offices requiring such translation:

None

The following designated or elected Offices, having waived the requirement for such a transmittal at this time, will receive copies of that translation from the International Bureau only upon their request:

AE, AG, AL, AM, AP, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EA, EC, EE, EG, EP, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OA, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

3. Reminder regarding translation into (one of) the official language(s) of the elected Office(s).

The applicant is reminded that, where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary report on patentability (Chapter II).

It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned within the applicable time limit (Rule 74.1). See Volume II of the PCT Applicant's Guide for further details.

| | |
|---|--|
| The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland | Authorized officer Agnès Wittmann-Regis |
| Facsimile No. +41 22 740 14 35 | Facsimile No. +41 22 338 89 70 |